Supplemental Material

Supplemental Figure 1: Additional SC characteristics of WPE-stem cells and As-CSCs. Western blots showing BMI-1 (top) and ABCG2 (middle) expression in RWPE-1 cells and WPE-stem cells. The high expression of BMI-1 and ABCG2 in WPE-stem cells compared to barely detectable levels in RWPE-1 further establishes the SC-like nature of WPE-stem cells.

Supplemental Table 1: Comparison of Characteristics Between Cell Lines

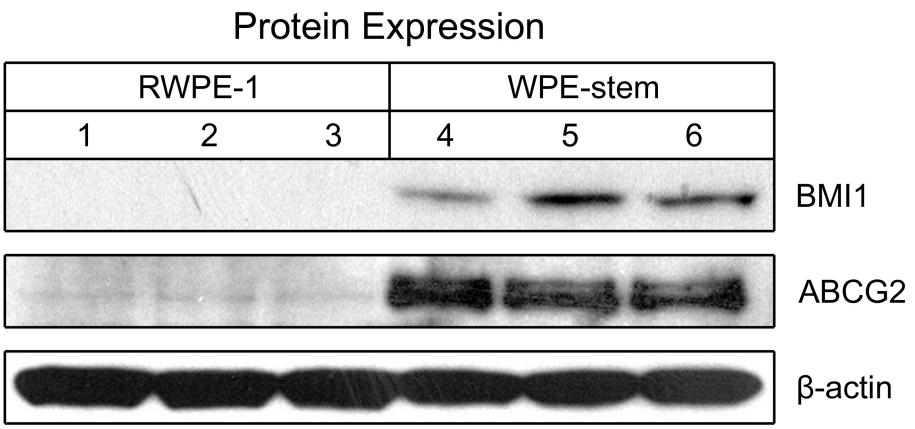
Characteristic	WPE-stem	RWPE-1
WHEN UNTRANSFORMED:		
Marker Expression:		
p63[a]	High	Low
ABCG2[d]	High	N/D
BMI-1[d]	High	N/D
K5/14[a]	High	Low
K18[a]	Low	High
AR[a]	Low	High
PSA[a]	Low	High
Androgen Responsive[a]:	No	Yes
Prostasphere formation[a]:	High	N/D
Proliferation[a]:	High	Low
Colony Formation[a]:	High	Very Low
WHEN TRANSFORMED WITH ARSENIC:		
Matrigel Structures:	Branching/ductal[d]	N/D[b]
Time to Transformation:	~18 weeks[d]	~30 weeks[c]
In vitro Invasion	Marked Increase[d]	Modest Increase[b]
In vitro Colony formation	Marked Increase[d]	Modest Increase[b]
In vitro Sphere Formation	Marked Increase[d]	Modest Increase[b]
Xenograft Tumors:		
Pathology	Highly undifferentiated with epithelial- and mesenchymal-like cells[d]	Epithelial cells consistent with typical prostate tumors[c]
Invasiveness	Regional[d]	Local[c]
Metastasis	Very Frequent[d]	None observed[c]

N/D = Not detectable; a = Data from Tokar et al. 2005; b= Unpublished data; c = Data from Achanzar et al 2002; d = Data from present study

Supplemental Table 2: Genes and primers analyzed by real time RT-PCR

Gene symbol (name)[a]	GenBank Accession No.	Primers (5' → 3')
ABCG2 (ATP Binding Cassette G2)	NM_004827	Forward - CGGGTGACTCATCCCAACAT Reverse - CTTAACCAAAGGCTCAGGATCTCA
ACTB (beta actin)	NM_001101	Forward - GTCCACCTTCCAGCAGATGTG Reverse - GCATTTGCGGTGGACGAT
BMI-1 (BMI1 polycomb ring finger oncogene)	NM_005180	Forward - AATCCCCACCTGATGTGTGT Reverse - GCTGGTCTCCAGGTAACGAA
GAPDH (Glyceraldehyde-3-phosphate dehydrogenase)	NM_002046	Forward - CCTCCCGCTTCGCTCTCT Reverse - CTGGCGACGCAAAAGAAGA
K5 (Keratin 5)	NM_000424	Forward - GTAGCAGCTCCAGCGTCAAAT Reverse - TTGGAAGGCAGTGACTTGCA
K18 (Keratin 18)	NM_000224	Forward - GCCTTGGACAGCAGCAACTC Reverse - GACACCACTTTGCCATCCACTA
NOTCH-1 (Notch homolog 1)	NM_017617	Forward - CGGGTCCACCAGTTTGAATG Reverse - GTTGTATTGGTTCGGCACCAT
OCT4/POU5F1 (Octomer 4/POU class 5 homeobox 1)	NM_002701	Forward - CCCCATTTCACCACACTCTACTC Reverse - CCAGAGCAGTGACAGGAACAGA
p63 (Tumor protein 63)	NM_003722	Forward - CCCCAAGCAGTGCCTCTACA Reverse - GGTGAATCGCACAGCATCAA
PTEN (Phosphatase and tensin homolog)	NM_000314	Forward - TTCACATCCTACCCCTTTGCA Reverse - TCTGAGCATTCCCTCCATTCC
SHH (Sonic hedgehog)	NM_000193	Forward - GGAGCGGACAGGCTGATG Reverse - ACTCCTGGCCACTGGTTCAT

[a]Official gene symbols and accession numbers from NCBI (2009).



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